Does Economies Of Scale Hold For Turkish Cypriot Municipalities? Or Not?

Assoc. Prof. Dr. Okan Veli ŞAFAKLI
European University of Lefke, Faculty of Business and Economics, Lefke-Northern Cyprus
Email: osafakli@eul.edu.tr

Dr. Mustafa ERTANIN
European University of Lefke, Faculty of Business and Economics, Lefke-Northern Cyprus
Email: mertanin@eul.edu.tr, ertanin@hotmail.com

Abstract

This study analyses the conditions of municipalities, in Northern Cyprus, within economies of scale extent. Within this scope, 2011 final accounts and municipal populations are taken as a basis. A correlation was managed between municipal populations and revenue and expense per person, with the help of SPSS package program. As a result of the correlation, positive relationship between the revenue and debt per person and the municipal population was found. Furthermore, not any statistical relationship was reported between staff expenses and municipal population. Economic resources required for municipal autonomy, the regional distribution of geographical population, professional and strategic management concept of municipalities and powerful and systematic internal and external audit must be at the desired level for a positive result of economies of scale and economies of scope in municipalities of Northern Cyprus.

Keywords: Northern Cyprus, Municipal Effectiveness, Economies of Scale

Introduction

In this current era of neo-liberal idea, concepts of effectiveness and productivity increase in importance. The idea of states being more productive and efficient by downsizing, was reflected to the local governments with a different perspective. For instance, scales of municipalities are increased and number of municipalities is decreased by amalgamation, on a population basis, in many countries worldwide. By this way, it is envisioned that the quality of municipal services would increase and the average costs would decrease improving effectiveness.

To decrease the number of municipalities in Northern Cyprus, gained acceptance parallel to the global trend. Within this scope, it is researched to find out if decreasing the number of municipalities and increasing the municipality scales would result in productivity as envisioned.
Correlation and analysis based on tables are managed, with use of 2011 accurate accounts and populations of Turkish Cypriot municipalities, for his purpose.

**World Experiences**

Economy, popularly described as the rational management of scarce sources leads the way to the necessity to define the optimum size for efficient and effective local services (TOBB, 1996, p. 107; Akdede and Acartür, 2005, p.6). Economies of scale and economies of scope are the key terms supporting this argument. Economies of scale exist when long-running average total costs fall as the scale of production increases, generally where fixed costs are a large proportion of total costs. Services such as water, wastewater and solid waste management provide examples where economies of scale are more likely to be evident. Economies of scope arise when joint activity enables organisations to produce a range of products rather than each on its own, typically by making more effective use of common inputs. It involves the generation of new outputs which otherwise could not have been produced by individual organisations alone (Aulich et al., 2011, pp. 39-40).

As most municipalities had a rather small size, efficiency gained seemed to be realizable by boosting economies of scale in the production of local public goods. Economies of scale would result in lower per unit costs of government as less administrative capacity is needed. This was also seen as a way to cope with the problems of spill over effects or externalities. The larger the municipality is, the more the externalities are internalized. Also the planning and decision making seemed to be easier, because fewer governments have to be coordinated. As only one government is responsible for local decisions, accountability towards citizens was expected to be much higher (Fields 1983, p. 23; Fritz, 2011).

According to Stephen Soul (2000) increasing population yields a lower level of gross expenditure per capita, up to a council size somewhere between 100,000 and 316,000 people, at which point ‘scale diseconomies’ begin (Dolley et al., 2008, p.172). On the other hand, Lawrence Southwick (2012) using the cities and towns of New York State over a number of years as the method of study, found that the estimated lowest cost populations appear to be somewhere between 17,000 and 21,000. Furthermore, according to a research done in Israel, it is mentioned that municipality population must be at least 10,000, for the economies of scale to appear (Eran, 1998, Şafaklı and Güryay, 2005, p.169). Additionally, as a final remark, the literature identifies a broad range of population between 25,000 and 250,000 as the most efficient. There are diseconomies of scale beyond 250,000 people. Small municipalities, those under 25,000, are less efficient only when services are specialized or capital intensive (Holzer et al. 2009).

For a period after World War II, comprehensive boundary reforms took place in several European countries, including Sweden, Norway, Denmark, and West Germany. In Sweden, for example, the number of local governments has decreased from 2,500 in 1950 to fewer than 300 through two major boundary reforms. The voluntary consolidation of municipalities also
occurred in Japan, where the number of municipalities dropped dramatically from 3,232 for March 31, 1999, to 1,821 for March 31, 2006 (Miyazaki, 2011).

The number of Danish municipalities is, in 2007, reduced from 270 to 98 to an average size of 55,000 inhabitants. The objective has been, first of all, to get better quality of municipal service but also the argument of economies of scale has been put forward by the government (Lotz, 2006).

The number of municipalities in Turkey reduced to 2,950, with the changes made to Metropolitan Regulation and Municipality Regulation in 2010, after the local election of 2009, whereas it was at the level of 3,228 in 2000. 1,591 municipalities are being closed down, reducing the total number of municipalities to 1,359, due to the last regulation in effect by the Grand National Assembly of Turkey. This number has currently increased to 1,384 with the new established district municipalities (HABERLER.COM, 2012).

To reduce the number of municipalities in Greece, ‘KALLIKRATIS’ plan was brought to agenda. According to the Kallikratis Plan, which was presented to the Council of Ministers and was opened up for discussion, number of municipalities and districts are being reduced to 370 from 1,034 in Greece (GÜNDEM, 2010).

**Case Of Turkish Cypriot Municipalities**

As of 2011, 28 municipalities operating in Northern Cyprus address to a population of 256,932. As seen on Table 1, municipal population of 8 municipalities, out of 28, are between 60,000-10,000, of 6 between 10,000-5,000 and of 14 less than 5,000. Share of 8 municipalities, which each has population between 60,000-10,000, in total population is 72,13%; share of 6 municipalities, with population between 10,000-5,000, is 13,86% and share of 14 municipalities, with population less than 5,000, is 14%.
Table 1: Classification of Municipalities, in Northern Cyprus, According to the Scale (2011)

<table>
<thead>
<tr>
<th>Municipalities with population between 60,000-10,000</th>
<th>Municipalities with population between 10,000-5,000</th>
<th>Municipalities with population less than 5,000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Municipality</td>
<td>Population</td>
<td>Municipality</td>
</tr>
<tr>
<td>1-LEFKOŞA</td>
<td>56.146</td>
<td>İSKELE</td>
</tr>
<tr>
<td>2-GAZİMAĞUSA</td>
<td>35.785</td>
<td>DİKMEN</td>
</tr>
<tr>
<td>3-GİRNE</td>
<td>27.357</td>
<td>YENİ BOĞAZİÇİ</td>
</tr>
<tr>
<td>4-GÜZELYURT</td>
<td>18.562</td>
<td>YENİ ERENKÖY</td>
</tr>
<tr>
<td>5-GÖNYELİ</td>
<td>12.393</td>
<td>ALSANCAK</td>
</tr>
<tr>
<td>6-DEĞİRMENLİK</td>
<td>12.297</td>
<td>ÇATALKÖY</td>
</tr>
<tr>
<td>7-LAPTA</td>
<td>12.089</td>
<td></td>
</tr>
<tr>
<td>8-LEFKE</td>
<td>10.702</td>
<td></td>
</tr>
<tr>
<td>9-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>12-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>13-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>14-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Population</td>
<td>185,331</td>
<td></td>
</tr>
<tr>
<td>Total Population(%)</td>
<td>72.13</td>
<td></td>
</tr>
</tbody>
</table>

Source: Cyprus Turkish Association of Municipalities - Ministry of Internal Affairs and Local Governments in Northern Cyprus

Numerically, population of 20 municipalities, out of total 28, is less than 10,000; population of 14 is less than 5,000. This shows it is not possible for 20 municipalities, in Northern Cyprus, to have the necessary technical and administrative structure in order to operate efficiently. This structuring arise the question whether or not the up scaled due to population municipalities serve more economically and more efficiently than the small scale municipalities? If it is evaluated according to the economies of scale and economies of scope the ratio is expected to be; higher the municipal scale, lower the average cost per person in a municipality. For the purpose, a correlation and analysis based on data is managed, regarding the revenue and expense per person, with the use of 2011 accurate accounts and populations of Turkish Cypriot municipalities.

Correlation, obtained by SPSS package program, is shown on Table 2. As seen from the table, assumptions for economies of scale are not functioning in Turkish Cypriot municipalities. As the municipal scale increases, a weak relationship with the total expense per person and a medium level relationship with debt per person is obtained.
Table 2: Correlation between Municipal Population and Revenue and Expense per Person

<table>
<thead>
<tr>
<th></th>
<th>Debt per Person</th>
<th>Total Revenue per Person</th>
<th>Personnel Expense per Person</th>
<th>Other expenses per person</th>
<th>Total non-debt revenue per person</th>
<th>Local Revenue per person</th>
<th>Total Expense per person</th>
</tr>
</thead>
<tbody>
<tr>
<td>Population</td>
<td>0.540(**</td>
<td>0.384(*)</td>
<td>0.132</td>
<td>0.496(**</td>
<td>0.204</td>
<td>0.496(**</td>
<td>0.375(*)</td>
</tr>
<tr>
<td>Sig.(2-tailed)</td>
<td>0.003</td>
<td>0.044</td>
<td>0.503</td>
<td>0.007</td>
<td>0.297</td>
<td>0.007</td>
<td>0.049</td>
</tr>
</tbody>
</table>

** Correlation is significant at the 0.01 level (2-tailed).
* Correlation is significant at the 0.05 level (2-tailed).

Source: Cyprus Turkish Association of Municipalities - TRNC Ministry of Internal Affairs and Local Governments

The most significant expense of municipalities is undoubtedly the personnel related expenses. This expense is expected to be lower per head resident in large-scale municipalities. However, it is understood from Table 2 and it is clearly seen at Figure 1 that this does not apply to Turkish Cypriot municipalities and there is no statistical relationship between the municipal population and the personnel expense per resident. Turkish Cypriot municipalities show a grand instability, which can’t be correlated with scale, with regards to personnel expenses. Parallel to this fact, municipalities with low personnel expenses are as follows in order: 4., 28., 8., 19., and 20.

Figure 1: Personnel Expense per Person of Turkish Cypriot Municipalities in 2011 (TL)
Above study can also be complimented with the outcomes from works of Dollery and Fleming (2006, p.274), ‘in general, labour intensive, customer-orientated services, such as municipal rangers, health inspectors, etc., generate few scale economies because their idiosyncratic nature means that an increased volume of services requires a correspondingly larger number of employees’. In contrast, ‘capital-intensive services, like sewage disposal and domestic water supply, usually yield significant economies of scale since the cost of fixed assets can be spread across a greater number of homes’. Amalgamation of municipalities in North Cyprus with its small population, composed of less dense and thus more bonded communities may on the other hand react similar to the outcomes of Dollery and Fleming’s above research on Australian Local Government economies, stating that ‘scale diseconomies can occur when enlargement of the boundary of a council makes it more difficult to manage its activities’. Moreover, ‘management problems typically proliferate when amalgamation breaks the close links between small councils and their residents’.

Conclusion

There is a tendency of reducing the number of municipalities, worldwide, in order to make local governments more efficient and effective. Economic base of this tendency is defined with economies of scale and economies of scope. However, it is not possible to acquire positive results of scale at every reform managed. Because, there are factors, other than scale, including corporate governance regime, revenue sources of municipalities, geographical structure, effectiveness of internal and external audit that determines the municipal performance. Municipalities with high scale cannot be expected to be efficient if these factors show up as a threat or weakness. The most obvious example of this is the Nicosia Turkish Municipality which entered de-facto stage of bankruptcy in the beginning of 2013. However, situation in Northern Cyprus does not eliminate the global economic fact. Municipalities must have revenue to accomplish the basic functions; rational distribution of sources must be taken as a basis with strategic management perception via institutionalizing. These activities must be subjected to the compliance and performance supervision systematically with a strong internal and external official and independent audit system, thus monitoring the scale to generate efficiency and effectiveness. Certainly, the vitally essential legal and arbitral structures should be established and enforced. Lack of above will prevent the scale economies to contribute to the efficiency and effectiveness of the municipalities and the criteria of their practises would still continue to be populism, nepotism and cronyism.

References


TOBB (1996), Mahalli İdarelerin Yeniden Yapılandırılması, ÖIK Raporu, TOBB Yayını, Ankara.